



# **15 WATT SOLAR 12 VOLT BATTERY CHARGER**



**User's Manual**

## **15 Watt Solar 12 Volt Battery Charger**

Solar Power Panel

15 Watt/ 1 Amp

Read this manual BEFORE and DURING the use of this product

Specifications and Included Items:

Power Rating: Up to 15Watts

Current: 1Amp @ 15V

Includes 12 Volt DC Plug, Alligator Clamps, 11.5ft Wire, Solar Panel, 4 Stainless Steel Mounting Screws,

### Installation

Securely place the solar panel in the sun. Included mounting screws can be used if necessary for permanent installation. To allow for heat dissipation, use a heat-resistant spacer between the panel and the surface, such as the rubber washers included.

#### *Installation through 12 Volt DC Plug:*

Plug the 12VDC Plug into the 12 Volt DC socket in vehicle. Make sure both ends are secure and aligned correctly. For optimal power, ensure the panel (solar cell up) is directly facing the sun.

#### *Installation to Battery by Alligator Clamps:*

Connect the alligator clamps correctly by matching the red clamp which is Positive (+) to the Positive (+) terminal on your battery. Connect the black Clamp which is Negative (-) to the Negative (-) Terminal on your battery.

**WARNING** Alligator clips must be placed on the battery in the aforementioned order. Wrong connections may cause sparking or explosion.

For optimal power, ensure the panel (solar cell up) is directly facing the sun.

#### **NOTE:**

This solar panel has a built in blocking diode to prevent reverse discharge. It is strongly recommended to use a Sunforce 7 Amp Solar Charge Controller to prevent battery from overcharging, this item is sold separately.

## **FAQ**

### **What type of batteries does this panel charge?**

All rechargeable 12V batteries like those used in Cars, Boats, RV's, Motorcycles and PWC's.

### **Can I use this solar panel outdoors?**

Yes, this solar panel is weatherproof. The weatherproofing includes UV protection and protects from weather effects of -35°F-175°F (-37°C - 79°C).

### **How long does it take to charge a battery?**

This solar panel can generate 1 Amp per hour under ideal conditions. For example, under ideal conditions, the panel will generate 15 Watts x 7 hours x 7 days per week for a total of 735 Watts of power. You can connect multiple panels together to decrease overall charging time. By adding a second panel of the same output you will double your output and half the length of the charge time.

### **How can I run AC appliances with my Solar Power Panel?**

You may connect the battery to a power inverter (sold separately) that converts DC power to AC power and run your appliances from the inverter.

### **Can I overcharge my battery?**

Yes, it is strongly recommended to use a Sunforce 7 Amp Solar Charge Controller to prevent battery from overcharging, this item is sold separately.

### **Can I extend the wire?**

Without loss of power or voltage the 11.5' wire may be extended to a maximum length of 25' with 16 gauge wire. Ensure proper connections.

### **How do I know if the panel is working?**

To measure the voltage of the panel use a voltmeter. The voltage reading should be between 16 and 25 Volts in full sun.

### **Can I start/drive my vehicle while the unit is connected to the battery?**

No, for safety reasons please make sure the panel is not in use while you are using your vehicle.

## TROUBLESHOOTING

Problem:

My panel is not functioning.

- Ensure battery is operational
- Ensure that the distance of the wires is not longer than 25' and all connections are secure.

## **Warranty**

This product is covered by a 5 year limited warranty. N'Power Product's will warrant to the original purchaser that this product is free from defects in materials and workmanship for the period of five years from date of purchase. To obtain warranty service please contact N'Power Products for further instruction, at 1-800-222-5381. Proof of purchase including date, and an explanation of complaint is required for warranty service. Distributed by Northern Tool + Equipment Company 2800 South cross Drive Burnsville, MN 55306

[www.northerntool.com](http://www.northerntool.com)